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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/054,549	01/18/2002	William Ho Chang	FLEX 2401	7153

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EXAMINER	
MILIA, MARK R	

ART UNIT	PAPER NUMBER
2625	

DATE MAILED: 08/09/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/054,549	CHANG ET AL.	
	Examiner	Art Unit	
	Mark R. Milia	2625	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *18 May 2006*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-23* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-23* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on 5/18/06 is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Response to Amendment

1. Applicant's amendment was received on 5/18/06 and has been entered and made of record. Currently, claims 1-23 are pending.

Drawings

2. The drawings were received on 5/18/06. These drawings are acceptable.

The current amendment to label Figs. 1A, 1B, 4A, and 4B as prior art and current amendment to the specification to insert reference numerals that were previously omitted has overcome the objection as cited in the previous Office Action. Therefore the objection has been withdrawn.

Response to Arguments

3. Applicant's arguments filed 5/18/06 have been fully considered but they are not persuasive.

Regarding claim 1, the applicant asserts that Buckley does not disclose or suggest that the printer or printer server renders documents with different set of rendering parameters. The examiner respectfully disagrees as Buckley does disclose

such a feature. Particularly, Buckley states that the printer driver and the virtual printer definitions may be stored in the print server and/or the printer and may be implemented in firmware and/or hardware (see column 7 lines 21-28). The virtual printer definitions include one or more sets of one or more selected rendering parameter options. The applicant also asserts that Buckley does not disclose or suggest that the general purpose computer "100" supplies intermediate output to the printer server or printers. The examiner would like to point out that the applicant admits that generating output data in PDL form from data content and sending the PDL (intermediate data) to an output device to be rasterized is prior art, as seen in Fig. 1B. Further, Levine discloses that a workstation creates a job that is converted into a PDL and the job is then transmitted to a controller to be rasterized and output. The controller is located in an information apparatus or server (see column 7 lines 40-47).

Therefore, the rejection of claim 1, as cited in the previous Office Action is maintained and repeated in this Office Action.

4. Applicant's arguments with respect to claims 2-15, 17, and 21 have been considered but are moot in view of the current amendments to the claims and therefore a new ground(s) of rejection will be made. Although, the examiner would like to point out that the applicant admits that generating output data in PDL form from data content and sending the PDL (intermediate data) to an output device to be rasterized is prior art, as seen in Fig. 1B. Further, Levine discloses that a workstation creates a job that is converted into a PDL and the job is then transmitted to a controller to be rasterized and output. The controller is located in an information apparatus or server (see column 7

lines 40-47). Thus, the combination of Buckley and Levine disclose receiving, at the printing device, intermediate data (PDL) which includes image data and converting the intermediate data to a raster form that the print engine can interpret.

Claim Rejections - 35 USC § 103

5. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

6. Claims 1-15, 17, and 21-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Buckley et al. (US 6798530) in view of Levine et al. (US 6020973).

Regarding claim 1, Buckley discloses a printing method in a printing device that includes a printer engine for rendering data encoded in a raster form, said method at the printing device comprising: receiving by short range wireless communication, at the printing device, data which includes image data corresponding to at least part of the content received from an information apparatus or a print server, the information apparatus of the print server being distinct from the printing device (see column 5 lines 32-49), extracting the image data from said data (see column 7 lines 14-20), converting the data in the page description language to the raster form rendered by the printer engine (see column 4 lines 13-18 and column 7 lines 14-20), and supplying the data in the raster form to the printer engine (see Fig. 2 and column 6 line 63-column 7 line 3).

Buckley does not disclose expressly converting the image data to data in a page description language form, (intermediate data).

Levine discloses converting the image data to data in a page description language form, (intermediate data) (see column 7 line 40-45).

Regarding claim 2, Buckley discloses an output device, distinct from an information apparatus, for rendering content, said output device including: a communication unit to receive via short range wireless communication output data from an information apparatus, the intermediate output data including at least part of the content encoded in image data form with a first bit depth and a first resolution, said intermediate output data including graphics or text elements exclusively encoded with image data (see Figs. 1-5, column 5 lines 32-49, column 6 line 51-column 7 line 3, and column 7 lines 35-67, reference shows that data objects such as graphics, bitmaps, and text are sent to a printer driver for subsequent conversion to print data and print control data that will be used to render the print data, also the bit depth and resolution can be changed as shown in figures 1 and 3-5, and therefore the data objects must have an initial bit depth and resolution, thus the reference is analogous to the claim limitation), an interpreter for receiving the intermediate output data and retrieving said image data from said intermediate output data (see column 4 lines 13-18 and column 6 line 51-column 7 line 20), a processor for carrying out at least one image processing operation on the interpreted data, said processing operation adjusting at least one of bit depth, color space and a combination of output size and resolution of the interpreted data (see Figs. 1 and 3-5 and column 7 line 35-column 8 line 13), and an output engine for receiving data from said processor and employing the data received from the processor to render the content (see Fig. 2 and column 6 line 51-column 7 line 20).

Buckley does not disclose expressly converting the image data to an intermediate data.

Levine discloses converting the image data to an intermediate data in a page description language form (see column 7 line 40-45).

Regarding claim 4, Buckley discloses a method of outputting content in an output system, the content encoded in image data having a first bit depth and a first resolution, the content including at least part of a text or graphics element, the output system being distinct from an information apparatus, said method in an output system comprising: receiving output data at the output system, the output data including said image data related to content (see column 6 line 51-column 7 line 3), interpreting the output data and retrieving said image data from the intermediate output data (see column 7 lines 4-20), carrying out at least one processing operation on the interpreted image data, said processing operation adjusting at least one of bit depth, color space and a combination of output size and resolution of the interpreted data (see Figs. 1 and 3-5 and column 7 line 35-column 8 line 13), and employing the data generated by the processing operation to render the content (see column 6 line 63-column 7 line 3).

Buckley does not disclose expressly converting the image data to an intermediate data.

Levine discloses converting the image data to an intermediate data in a page description language form (see column 7 line 40-45).

Regarding claim 5, Buckley discloses a data output device for rendering content managed with an information apparatus, the information apparatus being distinct from

the data output device, the data output device including at least a controller, a printer engine, a communication unit, and a memory storage, the controller for rendering content into a data acceptable as input to the output engine, the output engine imparts output on a medium in accordance with output data, the communication unit communicates with one or more computing devices, and the memory storage stores data for rendering; the improvement at the data output device comprising: means for providing at least an indication related to one or more data formats acceptable to the controller in connection with rendering content at the output device (see Figs. 1, 4, and 5, column 4 lines 13-38, and column 7 line 35-column 8 line 6, reference shows that graphic, bitmap, and text data objects can be rendered by the system and that a user can select rendering parameters) and means for receiving output data related to the content managed from the information apparatus, the output data corresponding to at least part of the content and includes data in accordance with said one or more acceptable data formats (see Fig. 2 and column 6 line 51-column 7 line 29).

Buckley does not disclose expressly converting the image data to an intermediate data.

Levine discloses converting the image data to an intermediate data in a page description language form (see column 7 line 40-45).

Buckley & Levine are combinable because they are from the same field of endeavor, output of print data.

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to combine the converting of image data into page description language

as described Levine, and which is well known and used in the art, with the system of Buckley.

The suggestion/motivation for doing so would have been to provide image data in a form that contains information about printing parameters to be utilized during rendering.

Therefore, it would have been obvious to combine Levine with Buckley to obtain the invention as specified in claims 1, 2, 4, and 5.

Regarding claim 3, Buckley further discloses wherein the output device is a printer, the output engine is a printer engine, and the processor is an image processor, and the second bit depth is less than the first bit depth (see Figs. 2-4, reference shows that the bit depth can be changed and that change can decrease the bit depth).

Regarding claim 6, Buckley further discloses means for establishing a wireless communication channel with an information apparatus (see column 5 lines 32-49).

Regarding claim 7, Buckley further discloses means for converting the intermediate output data into an output data that is acceptable for rendering with the output device (see column 7 lines 14-20).

Regarding claim 8, Buckley further discloses means for providing over the communication channel as said indication one more of an output device identification, an intermediate output data indicator, a quality of service indicator, a price indicator, a status indicator, an output device attribute indicator, a rasterization parameter indicator, a format indicator, and a language indicator (see Figs. 3-6 and column 4 lines 13-38).

Regarding claim 9, Buckley further discloses means for providing over the communication channel an output device profile (see Figs. 1 and 3-5, column 4 lines 13-38, column 6 lines 32-50, and column 7 lines 35-67).

Regarding claim 10, Buckley further discloses means for receiving intermediate output data that includes at least one output image corresponding to at least part of the content (see column 6 line 51-column 7 lines 20).

Regarding claim 11, Buckley further discloses wherein the means for receiving an intermediate output data includes means for receiving the intermediate output data that includes data in accordance with MRC encoding (see column 9 lines 26-36).

Regarding claim 12, Buckley further discloses means for performing at least one image processing operation on the output image; the image processing operation including one or more of a color correction operation, a color matching operation, a color space conversion, a color management operation, a scaling operation, an interpolation operation, and a halftoning operation (see Figs. 1 and 3-5, column 7 lines 35-67, and column 8 lines 61-67).

Regarding claim 13, Buckley further discloses means for conforming the intermediate output data into a print data that is acceptable to a printer controller associated with a printing device (see column 7 lines 14-20).

Regarding claim 14, Buckley further discloses in which the output medium is one or more of a substrate, a paper, a display screen, and a projector (see Figs 2 and 3, column 7 lines 39-46, and column 8 lines 61-65).

Regarding claim 15, Buckley further discloses in which the output device further comprises means for storing one or more output device profiles with one or more attributes corresponding to the output devices (see column 6 lines 48-50).

Regarding claim 16, Buckley further discloses an output device providing at least part of the output device profile to an information apparatus (see Figs. 1 and 3-5, column 4 lines 13-38, and column 7 line 35-column 8 line 13).

Buckley does not disclose expressly plural information apparatuses.

Levine further discloses plural information apparatuses utilizing an output device (see Fig. 5 and column 5 lines 15-40).

Regarding claim 17, Buckley further discloses in which the output device includes a printer (see Fig. 2).

Regarding claim 21, Buckley further discloses in which the output device further includes means for converting the output data content into a form compatible with the output engine (see column 7 lines 14-20).

Regarding claim 22, Buckley further discloses wherein the output system is one of a printer, a display device, or a sound output device (see Fig. 2).

Regarding claim 23, Buckley further discloses wherein the output system includes an output controller connected to a printer (see Fig. 2).

7. Claim 18 is rejected under 35 U.S.C. 103(a) as being unpatentable over Buckley and Levine as applied to claim 5 above, and further in view of U.S. Patent No. 6434535 to Kupka et al.

Buckley and Levine do not disclose expressly the output device further includes means for implementing payment processing as compensation for rendering of the output content on the output device.

Kupka discloses the output device further includes means for implementing payment processing as compensation for rendering of the output content on the output device (see Fig. 1, column 3 line 53-column 4 line 5, column 7 line 48-column 8 line 7, and column 14 lines 3-16).

Buckley, Levine, & Kupka are combinable because they are from the same problem solving area, distribution of electronic data.

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to combine the payment processing method, which is well known and used in the art, as described by Kupka with the system of Buckley and Levine.

The suggestion/motivation for doing so would have been to accurately calculate and collect payment for services rendered (data rendered).

Therefore, it would have been obvious to combine Kupka with Buckley and Levine to obtain the invention as specified in claim 18.

8. Claim 19 is rejected under 35 U.S.C. 103(a) as being unpatentable over Buckley and Levine as applied to claim 5 above, and further in view of U.S. Patent No. 6600569 to Osada et al.

Buckley and Levine do not disclose expressly means for implementing job management functionalities with one or more of data output job queuing and spooling.

Osada discloses means for implementing job management functionalities with one or more of data output job queuing and spooling (see Figs. 4 and 20, column 4 lines 12-65, and column 17 lines 52-59).

Buckley, Levine, & Osada are combinable because they are from the same field of endeavor, output of print data.

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to combine the job queue as described by Osada, and which is well known and used in the art, with the system of Buckley and Levine.

The suggestion/motivation for doing so would have been to allow a user to select a plurality of print jobs to be rendered without the need to wait for the print job to actually be executed, by sequentially storing the data for subsequent output, and when a printer becomes available to execute the job.

Therefore, it would have been obvious to combine Osada with Buckley and Levine to obtain the invention as specified in claim 19.

9. Claim 20 is rejected under 35 U.S.C. 103(a) as being unpatentable over Buckley and Levine as applied to claim 5 above, and further in view of U.S. Patent No. 6421748 to Lin et al.

Buckley and Levine do not disclose expressly means for implementing a security procedure that limits access to the rendering provided by the selected output device.

Lin discloses means for implementing a security procedure that limits access to the rendering provided by the selected output device (see Fig. 2 and column 4 lines 26-35).

Buckley, Levine, & Lin are combinable because they are from the same field of endeavor, output of print data.

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to combine the security procedure as described by Lin, and which is well known and used in the art, with the system of Buckley and Levine.

The suggestion/motivation for doing so would have been allow only certain users or workstations access to particular output devices.

Therefore, it would have been obvious to combine Lin with Buckley and Levine to obtain the invention as specified in claim 20.

Conclusion

1. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not

mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mark R. Milia whose telephone number is (571) 272-7408. The examiner can normally be reached M-F 8:00am-4:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Twyler M. Lamb can be reached at (571) 272-7406. The fax number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Mark R. Milia
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JOSEPH R. POKRZYWA
PRIMARY EXAMINER

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